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09/862,949	05/22/2001	Brian M. Hackworth	112056-0012	9748
24267	7590	10/13/2005	EXAMINER	
CESARI AND MCKENNA, LLP 88 BLACK FALCON AVENUE BOSTON, MA 02210			KE, PENG	
			ART UNIT	PAPER NUMBER
			2174	

DATE MAILED: 10/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/862,949

Applicant(s)

HACKWORTH, BRIAN M.

Examiner

Peng Ke

Art Unit

2174

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

PD

### **DETAILED ACTION**

This action is responsive to communications: Amendment filed on 7/21/2005.

Claims 1-37 are pending in this application. Claims 1, 14, 19, 25, 26, 29 and 35 are independent claims.

#### ***Claim Rejections - 35 USC # 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 7, 8, 13-16, 19, 23, 25-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Chu et al (hereinafter Chu), US-6,346,954.

As per claim 1, Chu teaches a system for reporting information related to predetermined storage volumes in a network, each volume including a cluster of physical storage disks and defining a logical arrangement of storage space, the system including at least one storage appliance comprising:

a monitor process that identifies volumes (accessible/inaccessible capacities) and retrieves statistical information with respect to the volumes; an interface adapted to enable volumes to be associated with a group; and a reporting process that organizes and displays the statistical information with respect to the volumes associated with the group to interested parties (col. 1, lines 8- 15, col. 8, line 47-col. 9, line 8).

As per claim 2, , which is dependent on claim 1, Chu teaches claim 1, Chu further teaches the system wherein the reporting process includes an event process for determining

Art Unit: 2174

identities of the interested parties with respect to the volumes associated with the group to interested parties (col. 7, line 66-co1. 8, line 12) (RAID groups, physical drives divided into arrays, Fig. 8).

As per claim 3, which is dependent on claim 2, Chu teaches claim 2. Chu further teaches the system wherein the event conditions include parameters of the volume and an associated device of the volume that exceed threshold levels (unusable/usable space) (col. 7, lines 20-31).

As per claim 4, which is dependent on claim 3, Chu teaches claim 3. Chu further teaches the system wherein the parameters include at least one of a central processing utilization level, a storage disk free space, a storage disk used space, or an environmental condition and operational status (col. 7, lines 52-65).

As per claim 7, which is dependent on claim 3, Chu teaches claim 3. Chu further teaches the system further comprising a database that retains information with respect to the interested parties and the threshold levels for the parameters (data stored on disk and on mirror disk) (col. 2, lines 24-36).

As per claim 8, which is dependent on claim 1, Chu teaches claim 1. Chu further teaches the system wherein each of the volumes are attached to each of a plurality of filers respectively (Fig. 3, 42, 44, 46).

As per claim 13, which is dependent on claim 1, Chu teaches claim 1. Chu further teaches the system wherein the reporting process is adapted to consolidate the statistical information from one or more volumes on one or more of the volumes on one or more storage appliances into the group (data distribution mode) (col. 7, 39-52).

As per claim 14, Chu teaches a graphical user interface for use with a management station or client personal station attached to a network having storage volumes, each volume including a cluster of physical storage disks and defining a logical arrangement of storage space, the graphical user interface comprising:

a display window that enables at least one of the volumes to be selectively associated with a desired group of interested parties (col. 8, lines 47-54, physical drives with group ID numbers)and

a display window that shows information related to performance and status of the volumes of the group based upon criteria selected by the user (Fig. 1, Fig. 3).

As per claim 15, which is dependent on claim 14, Chu teaches claims 14. Chu further teaches the graphical user interface wherein the information

includes at least one of central processing unit usage, volume disk free space, volume disk used space; environmental conditions; general operational status and events in which an operation parameter exceeds a predetermined threshold (operational status) (col. 12, lines 35-44).

As per claim 16, which is dependent on claim 14, Chu teaches claims 14. Chu further teaches the graphical user interface wherein the events include alerts that are color-coded based upon severity of a problem (indicator in the form of icon, text, and/or altered shading) (col. 10, lines 2-13).

As per claim 19, Chu teaches a method for reporting information related to predetermined storage volumes in a network, each volume including a cluster of physical storage disks and defining a logical arrangement of storage space, the method including at least one storage appliance comprising:

Art Unit: 2174

Identifying volumes and retrieving statistical information with respect to the volumes;  
Associating at least one of the identified volumes with a group; and  
Organizing and displaying the statistical information with respect to the volumes  
associated with the group to interested parties. (col. 8, line 66-col. 9, line 8).

As per claim 23, which is dependent on claim 19, Chu teaches claim 19. Chu further teaches the method wherein the step of organizing and displaying includes displaying event information related to predetermined statistical information that exceeds desired parameters (physical drive failure may be indicated) (l. 9, lines 61-col. 10, lines 1-5).

As per claim 25, Chu teaches a computer readable medium operating on a computer in a network that includes one or more storage appliances having volumes, each volume including a cluster of physical storage disks and defining a logical arrangement of storage space, the computer readable medium including program instruction for performing the steps of:

identifying storage volumes and retrieving statistical information with respect to the volumes',

associated at least one of the identified volume with a group; and  
organizing and displaying the statistical information with respect to the volumes  
associated with the group to interested parties (col. 1, lines 8-15, col. 8, line 47-col. 9, line 8).

As per claim 26, Chu teaches a method for organizing and displaying information with respect to one or more volumes on one or more storage appliances attached to a network, each of the volumes having statistical information associated therewith, the method comprising the steps of establishing a group of one or more of the volumes based upon predetermined reporting

Art Unit: 2174

criteria; and consolidating statistical information collected with respect to the volumes in the group for display to interested parties (Fig. 4-7, col. 10, lines 34-45).

As per claim 27, Chu teaches the method further comprising known predetermined threshold values to parameters of the statistical information generating an event condition when the at least one of the parameters exceeds at least one of the threshold values, respectively (col. 8, line 66-col. 9, line 8).

As per claim 28, it is rejected with the same rationale as claim 14. Supra.

As per claim 32, it is of the same scope as claim 14. Supra.

As per claim 33, it is of the same scope as claim 7. Supra.

As per claim 34, it is of the same scope as claim 16. Supra.

As per claim 35, it is rejected with the same rationale as claim 26. Supra.

As per claim 36, it is of the same scope as claim 7. Supra.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-6, 9-12, 17-18, 22, 24 and 28 are rejected under 35 USC 103(a) over Chu et al. (hereinafter Chu), 175-,346,954.

As per claim 5, Chu teaches the system of claim 1 but does not teach the system wherein the event process included is adapted to e-mail event information to at least some of the interested parties. However, Official Notice is taken that using electronic messages is very well known in the art therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use electronic messages as a means of notification in order to both log the notification in the form of an e-mail and provide instant notification to the user.

As per claim 6, Chu does not teach the system wherein the e-mail of the event information includes web links for use by the interested parties. However, Official Notice is taken that relaying web links to users through e-mail is well known in the art therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the use of web links in order to provide a greater wealth of information to users.

As per claim 9, Chu teaches the system comprising a command process that reports the statistical information to at least some of the interested parties (col. 4, lines 28-31, operational status. Chu does not teach process of generating web pages. However, Official Notice is taken that generating web pages is very well known in the art therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the process of generating web pages in order to display the statistical information calculated in Chu on a network.

As per claim 10 and 21, Chu teaches the system wherein the graphical user interfaces enable display of the statistical information in a plurality of predetermined windows and boxes within the windows based upon selection criteria entered by the interested parties (in response to user selections) (col. 3, lines 38-58) Fig. 6). Chu does not teach process of generating web pages.



However, Official Notice is taken that generating web pages is very well known in the art therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the process of generating web pages in order to display the statistical information calculated in Chu on a network.

As per claim 11, Chu teaches the system comprising alerts displayed on the graphical user interface based upon problems identified by the monitor process with respect to the volumes or devices associated with the volumes (col. 4, lines 15-31).

As per claims 12, Chu teaches the system wherein the alerts are color-coded based upon severity of the problems (indicator in the form of icon, text, and/or altered shading) (col. 10, lines 2-13).

As per claim 17, Chu teaches the method of claims 14 and 15 but does not teach the graphical user interface further comprising a link box that directs a user to network or Internet-based utilities in connection with the information. However, Official Notice is taken that relaying web links with information to users is well known in the art therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the use of web links in order to provide a greater wealth of information to users.

As per claim 18, Chu does not teach the graphical user interface wherein each display window is formatted as a web page and is displayed on a web browser. However, Official Notice is taken that generating web pages is very well known in the art therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the

process of generating web pages for display in order to provide links through the display window.

As per claim 22, Chu teaches the method further comprising changing the predetermined display format based upon user-selected criteria (col. 8, lines 47-55).

As per claim 24, Chu teaches the method wherein the step of displaying the event information includes providing color-coded alerts that indicated a severity of a problem associated with the respective event (indicator in the form of icon, text, and/or altered shading) (col. 10, lines 2- 13).

As per claim 28, Chu does not teach the method further comprising notifying at least one of the interested parties based upon the event condition using an electronic message. However, Official Notice is taken that using electronic messages is very well known in the art therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use electronic messages as a means of notification in order to both log the notification in the form of an e-mail and provide instant notification to the user.

As per claim 30, it is of the same scope as claim 5. Supra.

As per claim 31, it is of the same scope as claim 6. Supra.

As per claim 37, it is of the same scope as claim 5. Supra.

### ***Response to Argument***

Applicant's arguments filed on 8/18/2004 have been fully considered but they are not persuasive.

Applicant's arguments focused on the following:

A) Chu fails to teach identifies volumes and retrieves statistical information with respect to the volumes; and an interface adapted to enable volumes to be associated with a group.

A) Examiner interprets storage space within each disk drive to volumes, therefore Chu does display statistical information regarding them (col. 1, lines 8-15, col. 8, lines 47-col.9, lines 8), and Chu also groups them into different categories such as inaccessible capacity and accessible capacity. (col. 8, lines 47-col.9, lines 8). In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., volumes relating to performance) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

B) Chu fails to teach a reporting process that organizes and displays the statistical information with respect to the volumes associated with the group to interested parties.

B) Chu teaches gathering and displaying complete data storage for management purposes (col. 3, lines 50-57)

C) Chu fails to teach "each volume including a cluster of physical storage disks and defining a logical arrangement of storage space."

C) In response to applicant's arguments, the recitation "each volume including a cluster of physical storage disks and defining a logical arrangement of storage space" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for

completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peng Ke whose telephone number is (571) 272-4062. The examiner can normally be reached on M-Th and Alternate Fridays 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine L. Kincaid can be reached on (571) 272-4063. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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